

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING**

FILED
U.S. DISTRICT COURT
DISTRICT OF WYOMING
2015 AUG 17 PM 1 46
STEPHAN HARRIS, CLERK
CHEYENNE

WILD EARTH GUARDIANS,
POWDER RIVER BASIN RESOURCE
COUNCIL, and SIERRA CLUB,

Petitioners,

vs.

Case No. 12-CV-85-ABJ

UNITED STATES FOREST SERVICE,
UNITED STATES FOREST SERVICE
CHIEF, in his official capacity also known
as Tom Tidwell, UNITED STATES FOREST
SERVICE ACTING REGION II FORESTER,
in her official capacity also known as
Maribeth Gustafson, UNITED STATES
FOREST SERVICE ACTING REGION II
DEPUTY FORESTER, in his official
capacity also known as Glenn
Casamassa,

Respondent.

STATE OF WYOMING, BTU WESTERN
RESOURCES, INC., NATIONAL MINING
ASSOCIATION, WYOMING MINING
ASSOCIATION,

Respondents-Intervenors.

WILDEARTH GUARDIANS and
SIERRA CLUB,

Petitioners,

v.

UNITED STATES BUREAU OF LAND
MANAGEMENT,

Respondent.

STATE OF WYOMING,
BTU WESTERN RESOURCES, INC.,
NATIONAL MINING ASSOCIATION, and
WYOMING MINING ASSOCIATION,

Respondents-Intervenors.

Case No. 13-CV-42-ABJ

POWDER RIVER BASIN RESOURCE
COUNCIL,

Petitioner,

v.

UNITED STATES BUREAU OF LAND
MANAGEMENT, a federal agency within
the United States Department of
Interior, SALLY JEWELL, in her official
capacity as United States Secretary of
the Interior,

Respondents.

STATE OF WYOMING,
BTU WESTERN RESOURCES, INC.,
NATIONAL MINING ASSOCIATION, and
WYOMING MINING ASSOCIATION,

Respondents-Intervenors.

Case No. 13-CV-90-ABJ

OPINION AND ORDER AFFIRMING AGENCY ACTIONS

This matter comes before the Court for decision upon the merits of these three administrative appeals. The Court previously consolidated the cases for purposes of review. Case No. 12-CV-85-ABJ has been designated as the lead case. The petitioners have filed three separate opening briefs for consideration. The federal respondents (collectively identified as “United States” unless otherwise specifically stated) have filed a single opposition brief to the petitioners’ three opening briefs; the respondents-intervenors (collectively “intervenors”) have filed a single joint response to these three briefs; petitioners have filed three separate replies. All submissions will be considered in this Opinion and Order, with distinctions made between the three separate appeals as required by context and necessity for clarity. The Court has reviewed the administrative record, the parties’ written submissions, and applicable law. In these administrative appeals, review is confined to the administrative record.

Background and Facts

The three cases identified in the caption above have been consolidated for review. These cases all concern approval of issuance of two large coal leases within the Powder River Basin in Wyoming, portions of which are located within the Thunder Basin National Grassland. The Bureau of Land Management (“BLM”) authorized coal leases in areas identified as the North Hilight (“NH”), South Hilight (“SH”), North Porcupine (“NP”), and

South Porcupine ("SP") coal lease tracts (sometimes "the leases"), which would expand the North Antelope Rochelle and Black Thunder mines in the Powder River Basin.

In Case No. 13-CV-42-ABJ, petitioners WildEarth Guardians ("WEG") and Sierra Club challenge the BLM decisions approving the leasing of these tracts, asserting they do not comply with the requirements of federal law protecting air quality and climate. The Wright Area Final Environmental Impact Statement ("FEIS")¹ was issued July 2010 approving six coal leases including NH and SH, which will expand the Black Thunder Mine, and the NP and SP leases, expanding the North Antelope Rochelle Mine.² AR 179. The petitioners assert violations of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 *et seq.*, and the Federal Land Policy and Management Act ("FLPMA"), 43 U.S.C. § 1701 *et seq.* They seek review of the BLM's actions under the arbitrary and capricious standard of the Administrative Procedure Act ("APA"), 5 U.S.C. § 706. Petitioners contend that the BLM failed to comply with NEPA when it did not take a hard look at local air quality impacts resulting from coal mining, including direct and cumulative air quality impacts of ozone, direct effects of 24-hour PM₁₀ emissions and 24-hour and annual PM_{2.5} emissions, and direct and cumulative effects of short-term nitrogen dioxide (NO₂) emissions on air quality. Further, petitioners contend the BLM failed to take a hard look at climate impacts, including direct, indirect and cumulative impacts to climate caused by carbon dioxide (CO₂)

¹The entire FEIS is in the record before the Court, North Porcupine Record at 1 *et seq.* The Court will refer to the FEIS as AR ____, unless otherwise specified.

²Two other lease tracts were addressed in the Wright FEIS, including the West Hilight and West Jacobs Ranch tracts. Neither tract is at issue here.

emissions from coal mining and combustion. They assert that climate impacts will not change under the No Action Alternative. They further contend that the agency failed to address a reasonable range of alternatives with respect to emissions and climate change.

In Case No. 13-CV-90-ABJ, petitioner Powder River Basin Resource Council ("PRBRC") similarly challenges BLM decisions to approve the BLM's NP and SP Lease(s) by Application ("LBAs"), sought by BTU, a subsidiary of Peabody Energy Corporation, for the 9,607 acre expansion of the North Antelope Rochelle Mine. PRBRC also challenges the BLM's NH LBA, applied for by Ark Land Company, a wholly owned subsidiary of Arch Coal, Inc., for a 4,530 acre expansion of the Black Thunder Mine. These particular leasing decisions were analyzed as part of the BLM Environmental Impact Statement for the Wright Area FEIS, and approved by three separate Records of Decision ("RODs"). PRBRC asserts the BLM violated NEPA, by failing to take a hard look at critical reclamation reports from cooperating agencies on the FEIS, relying on inaccurate or misleading reclamation data, failing to take a hard look at contemporaneous reclamation at the Black Thunder and North Antelope Rochelle Mines and in the Powder River Basin, and by failing to include in the NEPA analysis compliance with Mineral Leasing Act ("MLA") requirements that no corporation may hold or control at one time coal leases on an aggregate of more than 75,000 acres in any one state and no greater than an aggregate of 150,000 acres in the United States.

In Case No. 12-CV-85-ABJ, petitioners WEG, PRBRC, and Sierra Club challenge the United States Forest Service's ("USFS") approval of two coal leases within the Thunder

Basin National Grassland ("Grassland"), a unit of the National Forest System,³ including the NP and SP coal leases. Because the two tracts are partially located on Grassland, USFS must consent to the leases before the BLM can approve leasing of the tracts. The petitioners argue that as the agency charged with protecting land and resources in the Grassland, USFS was required to take a hard look at environmental consequences of the leases before consenting to approval of issuance of the leases by the BLM and did not do so. USFS relied heavily on the BLM's Wright Area EIS in issuing its RODs approving the leases. Petitioners claim the Wright Area FEIS and USFS RODs are deficient, in that USFS failed to consider reasonable alternatives to the leases, failed to consider measures to mitigate the effects of the mines on the area's groundwater supply, and failed to analyze an array of air quality impacts likely to result from the leases.

As to all three cases, the United States disagrees and in turn asserts the actions of the BLM and USFS satisfied requirements of NEPA. It argues that the climate change claims lack merit. The BLM took the required hard look at climate change impacts and the FEIS analysis of all alternatives, including the No Action Alternative was reasonable. Further, the FEIS properly considered direct and indirect air quality impacts of leasing, including those affecting ozone, particulate matter, nitrogen dioxide, as well as the impacts of coal combustion. As to groundwater and reclamation, the United States says the FEIS

³"In general, the BLM sets the terms for and manages coal leases on Forest Services lands under the Mineral Leasing Act, 30 U.S.C. § 181 *et seq.* The Forest Service must consent to any mining activities on its lands and may impose conditions to protect forest resources. 30 U.S.C. § 1272." *Wild Earth Guardians v. United States Forest Service*, 828 F. Supp.2d 1223, 1227 n. 1 (D.Colo. 2011).

properly addressed these considerations. It further asserts the FLPMA, NFMA, and MLA claims lack merit.

The intervenors suggest the petitioners do not have standing to bring this action. They contend that petitioners have not carried the NEPA burden of showing the BLM did not take a hard look at potential impacts. Flowing from that discussion, the intervenors further contend that petitioners have failed to show that the USFS violated the NFMA or NEPA. Their contentions essentially echo those set forth by the United States.

Background

National Environmental Policy Act “(NEPA)”

NEPA is a declaration of a “broad national commitment to protecting and promoting environmental quality.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 347, 109 S.Ct. 1835, 1844 (1989). “To ensure that this commitment is ‘infused into the ongoing programs and actions of the Federal Government, the act also establishes some important ‘action-forcing’ procedures.” *Id.* The statutory scheme directs federal agencies to prepare an Environmental Impact Statement, which must take a “hard look” at the potential impacts of the agency’s proposed action. *Id.* at 350; 42 U.S.C. § 4332(2)(C). See also *High Country Conservation Advocates v United States Forest Service*, 52 F. Supp.3d 1174, 1181, 2014 WL 2922751 (D. Colo. 2014), citing *Robertson* and *New Mexico ex rel Richardson v. Bureau of Land Management*, 565 F.3d 683, 713 (10th Cir. 2009). The preparation of an environmental impact statement serves NEPA’s action forcing in two

ways: “it ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts” and “it also guarantees that the relevant information will be made available to the larger audience that may also play a role both in the decision making process and the implementation of that decision.” *Robertson*, 490 U.S. at 349. NEPA provides for transparent and informed decisionmaking by an agency and ensures public participation throughout the entire process.

“The EIS must also ‘rigorously explore and objectively evaluate all reasonable alternatives’ to a proposed action in comparative form, so as to provide a ‘clear basis for choice among the options.’” *WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp.2d 1223, 1236 (D. Colo. 2011) (quoting 40 C.F.R. § 1502.14). “Reasonable alternatives are those which are ‘bounded by some notion of feasibility,’ and, thus, need not include alternatives which are remote, speculative, impractical, or ineffective. *Id.* at 1236–37 (quoting *Utahns for Better Transp. v. U.S. Dep’t of Transp.*, 305 F.3d 1152, 1172 (10th Cir. 2002) and citing *Custer Cnty. Action Ass’n v. Garvey*, 256 F.3d 1024, 1039–40 (10th Cir. 2001)). “The EIS also must briefly discuss the reasons for eliminating any alternative from detailed study.” *Id.* (citing 40 C.F.R. § 1502.14(a)). To determine whether alleged deficiencies in an EIS merit reversal, the Court applies “a rule of reason standard (essentially an abuse of discretion standard).” *Utahns for Better Transp.*, 305 F.3d at 1163.

NEPA does not require an explicit cost-benefit analysis to be included in an EIS. 40 C.F.R. § 1502.23 (“[T]he weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations”); see also *Oregon Natural Res. Council v. Marsh*, 832 F.2d 1489, 1499 (9th Cir. 1987), *rev’d on other grounds*, 490 U.S. 360, 109 S.Ct. 1851, 104 L.Ed.2d 377; *North Carolina Alliance for Transp. Reform, Inc. v. U.S. Dep’t of Transp.*, 151 F. Supp.2d 661, 692 (M.D. N.C. 2001). However, where such an analysis is included it cannot be misleading. *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 446–48 (4th Cir. 1996) (“it is essential that the EIS not be based on misleading economic assumptions”); *Johnston v. Davis*, 698 F.2d 1088, 1094–95 (10th Cir. 1983)(disapproving of misleading statements resulting in “an unreasonable

comparison of alternatives” in an EIS).

High Country Conservation Advocates v. United States Forest Service, 52 F. Supp.3d at 1181-1182. See also *WildEarth Guardians v. Jewell*, 738 F.3d 298 (D.C.Cir. 2013). The rule of reason standard, which is essentially an abuse of discretion standard, is applied to decide whether claimed deficiencies in an EIS are significant to defeat the goals of NEPA. *Wild Earth Guardians v. United States Forest Service*, 828 F. Supp.2d 1223, 1236-1237 (D.Colo. 2011)(quoting *Utahns for Better Transp.*, 305 F.3d at 1163.)

Standing to Challenge Actions

Whether petitioners have standing to bring these challenges to agency action is a threshold issue. The exercise of judicial power is limited by the Constitution to cases and controversies. *Wild Earth Guardians v. United States E.P.A.*, 759 F.3d 1196, 1204-1205 (10th Cir. 2014). The standing doctrine restricts judicial power to redress or prevent actual or imminently threatened injury to persons caused by private or official violation of the law. *Id.*, quoting *Summers v. Earth Island Inst.*, 555 U.S. 488, 492, 129 S.Ct. 1142, 1148 (2009).

The petitioners have the burden of establishing the Article III standing elements. To do so, petitioners must

... have suffered an “injury in fact” -- an invasion of a legally protected interest which is (a) concrete and particularized, . . . and (b) “actual or imminent, not ‘conjectural’ or ‘hypothetical[.]’” . . . Second, there must be a causal connection between the injury and the conduct complained of -- the injury has to be “fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third

party not before the court.” . . . Third, it must be “likely,” as opposed to merely “speculative,” that the injury will be “redressed by a favorable decision.” . . .

Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-561, 112 S.Ct. 2130, 2136 (1992) (citations omitted).

The United States Supreme Court makes clear that petitioners bear the burden of showing that they have standing for each type of relief sought. *Summers v. Earth Island Institute*, 555 U.S. 488, 493 (2009), 129 S.Ct. 1142, 1149 (2009). In the Tenth Circuit, a petitioner must “com[e] forward with evidence of specific facts which prove standing.” *Bear Lodge Multiple Use Association v. Babbitt*, 175 F.3d 814, 821 (10th Cir. 1999).

It is common ground that the respondent organizations can assert the standing of their members. To establish the concrete and particularized injury that standing requires, respondents point to their members' recreational interests in the National Forests. While generalized harm to the forest or the environment will not alone support standing, if that harm in fact affects the recreational or even the mere esthetic interests of the plaintiff, that will suffice. *Sierra Club v. Morton*, 405 U.S. 727, 734–736, 92 S.Ct. 361, 31 L.Ed.2d 636 (1972).

Summers v. Earth Island Institute, 555 U.S. at 494, 129 S.Ct. at 1149.

Where, as here, petitioners are citizen environmental groups suing to protect the interests of their members from climate change and accompanying environmental harms, they must demonstrate members would have standing to sue in their own right:

[A]n association has standing to bring suit on behalf of its members when: (a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect [through the action] are germane to the organization's purpose; and (c) neither the claim nor the relief requested requires the participation of individual members in the lawsuit. *Hunt v. Wash. State Apple Adver. Comm'n*, 432 U.S. 333, 343, 97 S.Ct. 2434, 53 L.Ed.2d 383 (1977)[.]

WildEarth Guardians v. Jewell, 738 F.3d 298, 305 (10th Cir. 2013); *Amigos Bravos v. United States Bureau of Land Management*, 816 F. Supp.2d 1118, 1124 (D.N.M. 2011).

Petitioners here assert procedural violations by the BLM and USFS with respect to the FEIS issued in this case related to the decisions to offer the tracts for coal leasing. Where a petitioner is asserting procedural rights under NEPA, requirements for redressability are relaxed. *Massachusetts v. EPA*, 549 U.S. 497-518, 127 S.Ct. 1438 (2007). The district court in *Amigos Bravos v. United States Bureau of Land Management*, 816 F. Supp.2d at 1124-1125 stated:

The Supreme Court and the Tenth Circuit have concluded that where a plaintiff is asserting his procedural rights under NEPA the normal requirements for the redressability element are relaxed. *Mass. v. EPA*, 549 U.S. 497, 518, 127 S.Ct. 1438, 167 L.Ed.2d 248 (2007) ("When a litigant is vested with a procedural right, that litigant has standing if there is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant."); *Comm. to Save the Rio Hondo v. Lucero*, 102 F.3d 445, 452 (10th Cir. 1996) (concluding that the redressability prong is relaxed).

Nevertheless, "the requirement of injury in fact is a hard floor of Article III jurisdiction that cannot be removed by statute." *Summers v. Earth Island Inst.*, 555 U.S. 488, 129 S.Ct. 1142, 1151, 173 L.Ed.2d 1 (2009). In other words, unless a plaintiff can show an injury-in-fact that is (a) actual or imminent and (b) concrete and particularized, the Court must dismiss for lack of standing.

[D]eprivation of a procedural right without some concrete interest that is affected by the deprivation—a procedural right *in vacuo*—is insufficient to create Article III standing. Only a person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy.

Summers, 129 S.Ct. at 1151. Thus, while a procedural right "can loosen the strictures of the redressability prong of our standing inquiry," it does not

loosen a plaintiff's burden to show a concrete and particularized injury-in-fact. *Id.*; see also *Defenders of Wildlife*, 504 U.S. at 580–81, 112 S.Ct. 2130.

Where the injury claimed is one of process rather than result, requirements for Article III standing are somewhat relaxed or at least conceptually expanded. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 572 n. 7, 112 S.Ct. 2130 ((1992)).

First, for an injury in fact WildEarth “need not establish with certainty that adherence to the procedures would necessarily change the agency's ultimate decision.” *Utah v. Babbitt*, 137 F.3d 1193, 1216 n. 37 (10th Cir. 1998). It suffices that the procedures “are designed to protect some threatened concrete interest of [the person] that is the ultimate basis of standing.” *S. Utah Wilderness Alliance v. Office of Surface Mining Reclamation & Enforcement*, 620 F.3d 1227, 1234 (10th Cir. 2010) (emphasis and internal quotation marks omitted). “[W]here plaintiffs properly allege a procedural violation affecting a concrete interest[,] ... the injury results not from the agency's decision, but from the agency's uninformed decisionmaking.” *Id.* at 1234 (emphasis and internal quotation marks omitted). Thus, WildEarth need show only that compliance with the procedural requirements could have better protected its concrete interests. Similarly, to establish redressibility it need show only that the injury—lack of an informed decision—could be redressed by requiring the agency to make a more informed decision. See *id.* at 1235 (“[T]he fact that [the agency] refused to issue an updated recommendation also satisfies the causation and redressability prongs—[the agency]'s recalcitrance caused an allegedly uninformed decision, and this could be redressed by a favorable court decision, even if the Secretary's ultimate decision was the same.”)

Petitioners need not establish with certainty that adherence to the procedures would change the agency's ultimate decision. *Utah v. Battie*, 137 F.3d 1192, 1216 n. 37.

WildEarth Guardians v. United States E.P.A., 759 F.3d at 1205.

The challenged procedures must be designed to protect some threatened concrete interest of the person who provides the ultimate basis of standing. *Id.*, quoting *S. Utah Wilderness Alliance v. Office of Surface Mining Reclamation & Enforcement*, 620 F.3d

1227, 1234 (10th Cir. 2010). Where a procedural violation is allegedly affecting a concrete interest, the injury results from the agency's uninformed decisionmaking rather than from the agency's decision. *Id.* Therefore here, as in *WildEarth Guardians v. United States EPA*, the petitioners need show only that compliance with the procedural requirements *could* have better protected its concrete interests. *Id.*

There is little dispute here that the various petitioners will have associational standing if one of their members has standing under Article III. "An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit. *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333, 343, 97 S.Ct. 2434, 53 L.Ed.2d 383 (1977)." *Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.*, 528 U.S. 167, 181, 120 S.Ct. 693, 705 (2000).

A number of declarations have been offered to support the petitioners' claims of standing to bring these actions. In Case No. 13-CV-42-J, petitioners are WEG and Sierra Club. By way of example, the declaration of Jeremy Nichols states he is a resident of Golden, Colorado, and is a member and employee of WEG. He describes WEG as a non-profit environmental organization dedicated to protecting and restoring wildlife, wild places and wild rivers throughout the American West. He is a director of WEG's Climate and Energy Program. The Program advocates for clean energy solutions seeking to shift away from the use of fossil fuels to safeguard climate, clean air and communities. He is a Sierra

Club member, a national non-profit organization which, by way of example, is dedicated to exploring, enjoying and protecting wild places of the earth, practicing and promoting the responsible use of the earth's ecosystem and resources, educating and enlisting humanity to protect and restore the quality of the natural and human environment, using lawful means to carry out these objectives. He is familiar with the NP, SP, NH, and SH leases, the BLM's decisions approving sale and issuance of the leases, the BLM's Records of Decision and the Wright Area FEIS. He commented on behalf of WEG and the Sierra Club on the DEIS and the FEIS. He has frequently visited, and continues to visit, the area where the two mines are located for recreational purposes, including hiking, wildlife viewing, rockhounding and other activities. His declaration offers examples and photographs documenting observations he has made regarding the impact of the mining operations on aesthetics and scenic beauty, air quality and pollutants, including haze, dust clouds, the "orange cloud" related to blasting activities, and particulate matter emissions. He asserts these harms impact his ability to fully enjoy the public lands and scenery of these areas on his visits. He offers a discussion of air quality related harms and scientific study indicating that shifts in global climate are occurring, much of which is attributed to human activities and increases and releases of greenhouse gases (GHGs)^{4, 5} into the

⁴AR 138: "Greenhouse gases (GHGs) are an issue because of global warming and climate change. Global warming is a theory that certain gases in the atmosphere impede the radiation of heat from the earth back into space, trapping heat like the glass in a greenhouse. This raises the average temperature of the surface of the earth and the lower atmosphere, which contributes to climate change. Among these GHGs are carbon dioxide, methane, water vapor, ozone, nitrous oxide, hydrofluorocarbons, perfluorocarbons and
(continued...)

atmosphere. This is not a comprehensive outline of Mr. Nichols' declaration.

Other declarations have been submitted as well. Percy Angelo, a member of the Sierra Club, is a resident of Florida, active in various committees, and concerned by the impacts of increased global warming and GHGs affecting climate immediately and in years to come. He understands the climate is becoming warmer and weather patterns are erratic

⁴(...continued)

sulfur hexafluoride. GHGs are not currently regulated, but there is a consensus in the international community that global climate change is occurring and that it should be addressed in governmental decision making."

⁵It is also worth mention here that on August 3, 2015 President Obama announced the Clean Power Plan, which will implement EPA regulations addressing climate change, with companion goals of reducing carbon emissions into the atmosphere and development cleaner sources of energy. The President's remarks, which can be viewed at <https://www.whitehouse.gov/the-press-office/2015/08/03/remarks-president-announcing-clean-power-plan>, noted that existing power plants are the source of about a third of America's carbon pollution. He stated: "That's more pollution than our cars, our airplanes and our homes generate combined. That pollution contributes to climate change, which degrades the air our kids breathe. But there have never been federal limits on the amount of carbon that power plants can dump into the air. Think about that. We limit the amount of toxic chemicals like mercury and sulfur and arsenic in our air or our water -- and we're better off for it. But existing power plants can still dump unlimited amounts of harmful carbon pollution into the air."

"For the sake of our kids and the health and safety of all Americans, that has to change. For the sake of the planet, that has to change."

"So, two years ago, I directed Gina and the Environmental Protection Agency to take on this challenge. And today, after working with states and cities and power companies, the EPA is setting the first-ever nationwide standards to end the limitless dumping of carbon pollution from power plants."

The Clean Power Plan Final Rule, a massive 1,560 page document, is available on the EPA's website, <http://www2.epa.gov/cleanpowerplan/clean-power-plan-final-rule>.

Undoubtedly, this rule may significantly alter the nation's energy landscape and will impact the future development and transformation of the coal industry in the near future. It would not be a stretch to assume that protracted litigation regarding the Clean Power Plan is likely.

as a result of increased GHGs in the atmosphere. He asserts that reduction of GHGs could help protect Florida's landscape and ecosystems. He is aware coal-fired plants are among the largest industrial sources of GHGs and that nearly all coal mined in the PRB is burned in coal-fired power plants. The single largest source of coal in the United States is the PRB. Notwithstanding knowledge that massive amounts of carbon dioxide (CO₂) emissions result from PRB coal production, the BLM continues to issue new coal leases in the PRB without analyzing environmental impacts, including impacts of CO₂ emissions resulting from coal leasing. He understands the BLM authorized the sale and execution of the Wright Area leases in the Wyoming PRB, which have the potential to produce approximately 2 billion tons of coal, resulting in more than 3 billion tons of CO₂ emissions when burned. He worries that GHG emissions from coal mined from the Wright Area leases and other coal leases in the PRB will make climate change impacts more severe, difficult and expensive to address. It will exacerbate the effects of the presently-experienced global warming in Florida.

Greg Auriemma, a Sierra Club member in Ocean County, New Jersey, discloses that he has coastal property in Brick, New Jersey, an estuary on Barnegat Bay. He too speaks to familiarity with environmental issues in the New Jersey coastal areas, including climate change, its causes, and potential adverse impacts on public health, welfare and the environment. He is concerned that elevated GHGs, including CO₂, have potential to cause climate and environmental changes, increased temperatures, rising sea levels, glacier melt, and increases in frequency and intensity of extreme weather events. As a

result of Superstorm Sandy, he lost property and suffered damages as a result of that storm. He too says the BLM has failed to adequately analyze impacts of increased CO₂ emissions and climate changes resulting from burning coal mined and produced by these and other leases in the PRB which will damage the quality of life and exacerbate the effects of global warming.

Declarations much to the same effect have been offered by Sierra Club members Nancy Devlin, of Corpus Christi, Texas, Margaret J. DiClemente of Corpus Christi, Texas who has lived on Padre Island, Jeremy Nichols, Kathryn Phillips, Connie Wilbert, and Joel D. Fedder of Longboat Key, Florida. Edward Mainland, a Senior Conservation Fellow at the Sierra Club and Co-Chair of the Energy Climate Committee of the California-Nevada Regional Conservation Committee (CNRCC), a resident of Novato, California, a lagoon community on the shores of San Francisco Bay, has offered a declaration as well. His declaration addresses carbon emissions and climate change, direct and harmful effects on the community, rising sea levels, extreme weather and shore erosion, increases in flood insurance costs and other costs. He observes that climate change has altered ecosystems in the Sierra and Cascade Ranges, including weather and climate pattern changes, more intense forest fires, and reduced snow pack. He and his family have observed more beach and cliff erosion. He, as the others, and with his review of literature and reports, is confident that such changes are at least partially attributable to climate change, and have been drastically accelerated due to human-caused GHGs and activities. He and the Sierra Club, advocate for reduction of GHG emissions. His declaration states that coal

combustion is a major cause of carbon emissions and climate change and should be phased out as soon as possible.

The declaration of Michael C. MacCracken is offered. He has a B.S. in Engineering from Princeton University and M.S. and Ph.D. degrees in Applied Science from the University of California, Davis. He has been employed as a physicist at the University of California Lawrence Livermore National Laboratory, leading scientific projects relating to natural and human influences on regional air pollution and global climate. He served in advisory capacities for climate change research programs managed by the Department of Energy, and has participated in numerous other professional activities related to climate change and impact on the environment. From 1993 to 2002, he was assigned to serve as senior scientist on global change in the interagency office of U.S. Global Change Research Program in Washington D.C., serving as its first executive director from 1993 to 1997. The global change research programs is with ten separate federal agencies, including the Department of Interior U.S. Geological Survey, Department of Energy, National Science Foundation, Environmental Protection Agency, National Oceanic and Atmospheric Administration, NASA, and others. He lists many similar professional activities in various capacities related to study and research in the area of climate change impacts. He participated in assessments prepared by the Intergovernmental Panel on Climate Change (IPCC). Since he retired from Livermore National Laboratory in September 2002 after completing his assignment with the USGCRP, he has served pro bono as Chief Scientist for Climate Change Programs with the Climate Institute in Washington, D. C., a 13-

member Assessment Integration team of the 8 National Arctic Climate Impacts Assessment. He has served as President of the International Association of Meteorology and Atmospheric Sciences, the U.S. National Academy of Sciences Committee facilitating participation of U.S. scientists with international associations for atmosphere, oceans, cryosphere, hydrology, and more. He was the international atmospheric sciences representative on the executive committee of the Scientific Committee on Oceanic Research. He has offered expert declarations in several cases related to climate change. He has authored books, reports and peer-reviewed journal articles relating to climate change. He does not belong to either the Sierra Club or WEG.

His declaration outlines four key points to consider here. He asserts the FEIS for the Wright Area Coal lease applications seriously misrepresents scientific understanding and stated policies of the Administration; emissions from and associated with combustion of coal, petroleum and natural gas cause climate change and consequent environmental and societal impacts; emissions resulting from mining, transporting and combustion of coal to be extracted from the proposed leases will lead to significant emissions into the atmosphere of warmth-inducing substances, the emissions of which the government has pledged to reduce; and that on-going and prospective climate change is already affecting those living in the United States and around the world, and that climate change impacts will intensify significantly in the decades ahead.

The expert declaration of Michael Power is offered, discussing the intersection of natural resource economics and regional economics. He work has included study of the

economics of energy, and coal in particular. Many of his professional activities, study and publications are outlined in the declaration. They include studies that have considered the role that mining industries may play in state and regional economics, and energy economics. His declaration outlines four general points regarding the economics of BLM's coal leasing program in the PRB. He indicates that almost half of all coal in the United States is sub-bituminous coal from the PRB. The primary source of sub-bituminous coal is in the PRB in Montana and Wyoming, representing 93% of sub-bituminous coal production in the United States, according to USDOC EIA 2020 data on coal production. The coal leasing program has a significant impact on the American coal market. PRB coal reduces the cost of using coal for electricity generation because of low sulfur content, providing a way for generators to meet acid rain requirements, and making it valuable in lowering sulfur dioxide pollution, and competitive mining costs when compared to delivered costs of coal from other coal producing areas. He says the leases have a significant impact on coal consumption, increasing the level of coal combustion, and GHG emissions. He discusses the BLM's FEIS explanations of the cost advantages of PRB coal. His economic analysis discusses the use, supply, demand, production costs as it relates to coal production in the PRB, specifically the Black Thunder and North Antelope Rochelle mines. He is critical of the analysis and data used in the EIS and details extensively his discussion and evaluation of the FEIS..

In 12-CV-85-ABJ, petitioners offer the supporting declaration of Leland J. Turner, a resident of Campbell County, Wyoming, and owner of a 10,000 acre sheep and cattle

ranch near Wright, Wyoming. He and his wife are members of the PRBRC, because the organization represents their interests in having a clean and healthful environment in northeastern Wyoming, including their interests in protecting air quality, healthy soils and rangeland. He regularly visits areas impacted by current mining operations and areas that will be impacted by the additional leases. He cares for his livestock, visits the Grassland, enjoys viewing elk, antelope, and other wildlife and also hunts. He has observed air pollution from the mines which creates regional haze and decreases air quality. He believes that present and future mining activities contribute to air pollution in the area and that the health of his family and livestock will be further impacted by the proposed coal leases.

He is also concerned about water impacts from future coal mining activities and nearby coalbed methane. He depends on groundwater at the ranch and in his lease areas in the Grassland. Dewatering of aquifers and reduction of available water is a significant concern. Some wells are no longer usable; some water holes are completely dried up. He struggles with the mining impacts to the water supply. He is concerned about reclamation at North Antelope Rochelle and other mines in the area. Great amounts of land are disturbed every year because of mining operations and very little land actually gets reclaimed. He supports the PRBRC's challenge to the USFS consent to the BLM decision to lease the SP and NP tracts. Better analysis of the reclamation status may be required and may lead to better reclamation practices.

Jeremy Nichols, whose background is outlined above, offers a declaration in this

case as well regarding the USFS consent to the issuance of coal leases. As noted above, he visits the affected areas, primarily for recreational purposes and enjoys its scenic, conservation and educational values. He shares his observations and experiences from his visits to the area. He expresses concerns about air quality and pollution, which diminish his enjoyment of recreational opportunities in the area. He maintains that the FEIS fails to adequately analyze these impacts. When the USFS consented to issuance of the leases, it did not accurately disclose expected air quality impacts, failed to analyze and assess impacts of emissions from burning NP and SP coal, failed to assess reasonably foreseeable impacts of coal-fired power plant emissions connected with the NP and SP leases around the Laramie River Station, the Martin Drake Power Plant, and the Ray Nixon Power Plant. He challenges the USFS consideration of alternatives and environmental harms, which results in an uninformed decision and harm to his, Sierra Club's and WEG's interests.

In Case No. 13-CV-90-J, PRBRC offers the declarations of Leland Turner and Dave Clarendon, which are to the same effect as the declarations described above. Leland Turner's declaration, AR BLM 31757, tracks the declaration offered with respect to Case No. 12-CV-85-J. He and his wife ranch and are active members of the PRBRC. He visits the area impacted by mining operations and owns active grazing permits within the Grassland. The concerns expressed in this declaration address air pollution, including regional haze and decreased air quality. The coal dust and other air pollution impact enjoyment of recreational opportunities in the area, such as hunting, as well as his

ranching business. Again, he is particularly concerned about water impacts. His ranching operations depend on groundwater at the ranch and in the lease areas in the Grassland. Dewatering of aquifers caused by coal mining negatively impacts his ranching operations. He has spent large amounts of money investing in water supply systems of deep wells, pipelines and tanks and has experienced reduced availability of water and drawdown of the aquifer. He remains concerned about reclamation at mines in the area, stating that large amounts of land are disturbed every year because of mining but little land ever gets reclaimed. This results in significant loss of grazing pastureland on the Grassland; none has been returned. He believes that better analysis of the reclamation status of the mines, air quality, aquifer drawdown, and the spread of noxious weeds is required and may lead to better practices.

The declaration of Dave Clarendon, a long-time member of the PRBRC and rancher in Sheridan County Wyoming, expresses similar concerns about water. He discusses the shorter growing season and lack of rainfall in the area, and the impact on his ability to grow hay and water his cattle. Snowpack is on a downward trend and fails to generate the same amount of water as in the past. He refers the reader to the USGSINRCS website for data in this regard. (He formerly worked as a snow surveyor for Soil Conservation Service, now called the Natural Resource Conservation Service.) He notes vegetative changes he has observed. He is concerned that increased GHGs from mining activities and CO₂ emissions resulting from burning coal that will be produced after lease in the Wright area lease area will exacerbate the detrimental effects on water production and runoff. He states,

“although I am not completely against coal mining, I believe that the BLM should consider climate mitigation options and alternatives that will reduce greenhouse gas emissions of coal mining and coal-fired plants.” AR BLM 31761.

The *WildEarth Guardians v. Jewell* opinion, 738 F.3d 298, issued by the D.C. Circuit on December 24, 2013, presented a challenge to the BLM’s decision to approve for leasing the West Antelope II tracts, adjacent to Antelope Coal’s existing mine in the PRB. The petitioners in that case were the same as in these consolidated cases, WEG, Sierra Club, PRBRC, and also Defenders of Wildlife. The argument there was that the ROD, dividing a tract of federal land adjacent to North Antelope Coal’s existing mine (Antelope II tracts), and the corresponding FEIS were deficient and violated NEPA, the MLA, and FLPMA. The alleged deficiencies included a failure to consider certain environmental concerns, such as increase in local pollution and global climate change caused by future mining before authorizing the leasing of the West Antelope II tracts.

The petitioners in *Jewell* claimed standing based on the effects of global climate change and separate injury including harm to members’ recreational and aesthetic interests from local pollution not caused by global climate change. *Jewell*, 738 F.3d at 307. The circuit court acknowledged relaxed redressability and imminence requirements for a plaintiff claiming procedural injury, quoting *Summers v. Earth Island Institute*, 555 U.S. 488, 497, 129 S.Ct. 1142 (2009), and stated that “the requirement of injury in fact is a hard floor of Article III jurisdiction that cannot be removed by statute.” *Jewell*, 738 F.3d. at 305. “A procedural injury claim therefore must be tethered to some concrete interest adversely

affected by the procedural deprivation: '[A] procedural right *in vacuo*, . . . is insufficient to create Article III standing.' *Id.*, quoting *Summers*, 555 U.S. at 496.

Environmental groups have standing to challenge most agency decisions. In this case, except for the objection raised by the intervenors, no serious challenge or objection to standing exists. However, the intervenors assert that plaintiffs lack standing to challenge the agency actions as to claims that the agencies failed to adequately consider climate change or analyze impacts to the environment from GHG emissions. The argument, as posited by intervenors, is that plaintiffs must trace the concrete injury they claim to have suffered to the particular legal theory petitioners have advanced. Said otherwise, intervenors believe the petitioners should demonstrate why the purported inadequate analysis of climate change will cause harm to their personal recreational interests. Intervenors urge that the petitioners cannot connect the dots between the deficiencies and the harms they face. The Court finds that this argument is not persuasive. The discussion in *High Country Conservation Advocates v. United States Forest Service* is helpful:

This attempt to raise the bar on standing by requiring additional proof beyond injury, causation, and redressability has been rebuffed by other courts including the U.S. Supreme Court. The Court of Appeals for the D.C. Circuit rejected an identical argument last year. In that case, the district court

found [that plaintiffs] lacked standing to raise the argument because they could not demonstrate a link between their members' recreational and aesthetic interests, "which are uniformly local, and the diffuse and unpredictable effects of [greenhouse gas] emissions." The district court therefore seemed to require that the specific type of pollution causing the Appellants' aesthetic injury—here, local pollution—be the same type that was inadequately considered in the FEIS. In this respect, we think it sliced the salami too thin.

WildEarth Guardians v. Jewell, 738 F.3d 298, 306–07 (D.C.Cir. 2013) (internal citations omitted) (citing *Duke Power Co. v. Carolina Envtl. Study Grp. Inc.*, 438 U.S. 59, 78–79, 98 S.Ct. 2620, 57 L.Ed.2d 595 (1978) (holding that, except in taxpayer standing cases, a plaintiff who has otherwise demonstrated standing need not demonstrate a nexus between the right asserted and the injury alleged)). The court went on to explain that vacatur of the allegedly deficient FEIS would redress the plaintiff's injury regardless of the "specific flaw" in the agency's decision. *Id.* at 307; see also *WildEarth Guardians*, 828 F. Supp.2d at 1235 (D.Colo. 2011) (rejecting the idea that a plaintiff in a similar challenge to an agency coal leasing decision "must specifically allege a personalized injury resulting from climate change, rather than from the project itself"). Like these other courts, I find that requiring High Country Conservation Advocates to prove more than injury, causation, and redressability would be inappropriate and lacks precedential support. I find that plaintiffs have standing to challenge the CRR even if their argument that the rule failed to adequately analyze climate change impacts does not share a nexus with the concrete injury to their recreational interests.

High Country Conservation Advocates v. United States Forest Service, 52 F. Supp.3d at 1187.

This Court will join with those courts who reject the argument that petitioners lack standing when they assert that coal leasing in the areas of concern would impact global climate change and would in turn threaten their members' enjoyment of the at-issue areas. The petitioners allege procedural failures in the agencies' considerations of the proposed lease expansions. They have produced evidence of personal injury to their members' enjoyment and use of these lands. This injury is not conjectural nor hypothetical and is fairly traceable to the respondents' action. The viewpoint that the associations must allege a personal injury resulting from climate change, rather than the lease expansion authorizations, is not supported by law or persuasive authority. As the Colorado United States District Court indicated, standing need not be so narrowly construed for NEPA

purposes. *WildEarth Guardians v. United States Forest Service*, 828 F. Supp.2d 1223, 1235 (2011) [(quoting *Larson v. Valente*, 456 U.S. 228, 244, n. 15, 102 S.Ct. 1673, 72 L.Ed.2d 33 (1982) (“[A] plaintiff satisfies the redressability requirement when he shows that a favorable decision will relieve a discrete injury to himself. He need not show that a favorable decision will relieve his every injury.”)]. The procedural failure asserted here is the allegedly inadequate consideration of alternatives, which influenced the decision whether to approve the project, thereby creating the harm alleged. The Court is satisfied that WildEarth has standing to assert its claims.”)].

In step with the courts noted above, this Court will not slice the salami so thin. The petitioners’ alleged injuries would be redressed by vacatur of a deficient FEIS. This is consistent with the notion that a plaintiff must demonstrate standing for **each form of relief** sought. See *Summers v. Earth Island Institute*, 555 U.S. at 493. Petitioners have standing to challenge the FEIS even if their argument that the FEIS failed to adequately analyze climate change impacts has no common nexus with the concrete injury to recreational interests. The vacatur of an allegedly deficient FEIS would redress the petitioners’ injuries regardless of the “specific flaw” in the agency’s decision. *High Country Conservation Advocates v. United States Forest Service.*, 52 F. Supp.3d at 1187. Even though petitioners have asserted more than one theory in support of their claims that the FEIS is deficient, they do not seek more than one form of relief. The Court finds petitioners have standing.

Standard of Review

Because neither NEPA nor FLPMA create a private right of action, the Court reviews the challenge to the final agency actions under the Administrative Procedures Act (“APA”), 5 U.S.C. § 551 et seq. See *Hillsdale Environmental Loss Prevention, Inc. v United States Army Corps of Engineers*, 702 F.3d 1156, 1165 (10th Cir. 2012); *New Mexico ex rel Richardson v. BLM*, 565 F.3d 683, 719 (10th Cir. 2009). The Court’s inquiry under the APA “must be thorough, but the standard of review is very deferential to the agency. A presumption of validity attaches to the agency action and the burden of proof rests with the parties who challenge such action.” *Hillsdale Environmental Loss Prevention, Inc.*, 702 F.3d at 1165 (internal quotations and citations omitted); and see *Western Watersheds Project v. Bureau of Land Management*, 721 F.3d 1264, 1273 (10th Cir. 2013).

The governing standard of review was reiterated recently in *WildEarth Guardians v. United States Office of Surface Mining, Reclamation & Enforcement*, _____ F.3d _____, Text at 2015 WL 2207834, *5 (D.Colo. 2015):

Judicial review of agency compliance with NEPA is deferential. See *Marsh*, 490 U.S. at 377, 109 S.Ct. 1851. By law, this Court may only set aside an agency’s decision if, after a review of the entire administrative record, the Court finds that the decision was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A); see also *Davis v. Mineta*, 302 F.3d 1104, 1111 (10th Cir. 2002).

An agency’s decision is arbitrary and capricious if the agency (1) entirely failed to consider an important aspect of the problem, (2) offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise, (3) failed to base its decision on consideration of the relevant factors, or (4) made a clear error of judgment. Deficiencies ... that are mere “flyspecks” and do not defeat NEPA’s goals of

informed decisionmaking and informed public comment will not lead to reversal.

New Mexico ex rel. Richardson, 565 F.3d at 704 (internal quotation marks and citations omitted).

The plaintiff bears the burden of proof on the question of whether an agency's decision was arbitrary or capricious. See *Krueger*, 513 F.3d at 1176 (explaining that the agency's decision is presumed valid). This Court cannot substitute its own judgment for the agency's judgment. *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 555, 98 S.Ct. 1197, 55 L.Ed.2d 460 (1978). “[D]eference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise.” *Wyoming v. U.S. Dep’t of Agric.*, 661 F.3d 1209, 1246 (10th Cir. 2011)(quoting *Morris v. U.S. Nuclear Regulatory Comm’n*, 598 F.3d 677, 691 (10th Cir. 2010)).

However, the Court must make a searching review of the basis for the agency's decision. And, if the agency simply has not acted, such as the claim that the OSM provided no public notice or opportunity for public involvement with respect to its actions on the two mining plan revisions, the Court may not “defer to a void.” *Or. Natural Desert Ass’n v. Bureau of Land Mgmt.*, 625 F.3d 1092, 1121 (9th Cir. 2010).

Petitioners’ Claims

The petitioners’ claims in all of the three consolidated cases share commonality in that they assert the agencies, BLM and USFS, failed to comply with federal law by failing to consider a reasonable range of alternatives in making the decisions authorizing leasing of these tracts, and failed to consider direct and indirect air quality impacts, hydrological and groundwater impacts, mitigation and reclamation, and global climate impacts. With these failures, petitioners argue that the requirements of the National Environmental Policy Act of 1969 (“NEPA”), 42 U.S.C. § 4321 et seq., the Federal Land Policy Management Act,

("FLPMA"), 43 U.S.C. § 1701 et seq., the National Forest Management Act ("NFMA"), 16 U.S.C. § 1600 et seq., the Surface Mining Control and Reclamation Act ("SMCRA"), 30 U.S.C. § 1270 et seq., and the Mineral Leasing Act ("MLA"), 39 U.S.C. §§ 181 et seq., have not been satisfied.⁶ As a result, the FEIS was misleading and incomplete, and could not be used to justify decisions made and reflected in the FEIS and RODs.

The primary focus in addressing petitioners' claims will be on the BLM's assessments, as the agency preparing and publishing the Wright Area FEIS. The USFS also relied on the BLM's work in consenting to authorization of leasing in the Grassland, as embodied by the USFS RODs for the NP and SP leases, and the RODs for each of the four tracts, NP, SP, NH, and SH. It is also worth another reminder here that NEPA does not fix substantive outcomes of agency actions. It requires informed decisionmaking, with opportunities for public participation and comment, and is crafted to ensure the agency takes the requisite hard look at the potential environmental consequences of its action. NEPA does not require that environmental concerns be elevated over other appropriate considerations. *Baltimore Gas and Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S., 97-98, 103 S.Ct. 2246, 2252 (1983). Where an agency must make predictions within its area of expertise, and "at the frontiers of science," a reviewing court must be at its "most deferential." *Id.*, 462 U.S. at 103; 103 S.Ct. at 2255.

With this as the yardstick by which the agencies' decisions should be measured, the

⁶The MLA authorizes the Secretary of Interior to offer leases on tracts of federal land suitable for coal mining and to award such leases based on a competitive bidding process. 30 U.S.C. § 201(a)(1).

Court finds that the decisions with respect to the proposed LBAs for the North Porcupine, South Porcupine, North Hilight and South Hilight tracts were not arbitrary and capricious or in conflict with the law.

The two agencies here have statutory mandates for land use that observe the principle of multiple use. The Federal Land Policy and Management Act requires that the BLM manage public lands according to principles of multiple use management. 43 U.S.C. §§ 1701, 1712. The BLM is to design land use plans to strike “a balance among the many competing uses to which the land can be put.” *Western Watersheds Project v. Bureau of Land Management*, 721 F.3d at 1268 (citing *State of New Mexico ex rel. Bill Richardson v. BLM*, 565 F.3d 683, 690 n. 3 (10th Cir. 2009)).⁷ The USFS is governed by a similar multiple use mandate as well. 16 U.S.C. § 528.

⁷ 43 C.F.R. § 1601.0-5(i):

(i) Multiple use means the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the lands for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some lands for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the lands and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

The BLM manages coal leases underlying Forest Service Land pursuant to the Mineral Leasing Act, 30 U.S.C. § 181 *et seq.*, which authorizes the Secretary of Interior to dispose of federal coal deposits to citizens of the United States, or to associations or such citizens, or to any corporation organized under the laws of the United States, or if any State or Territory thereof, or in the case of coal, oil, oil shale, or gas, to municipalities. . . .” Because the USFS retains management authority over the surface lands within the National Forest System overlying these leases, the BLM is required to obtain consent of the USFS before approving leases. 30 U.S.C. § 201, 207(a); 43 C.F.R. § 3425.3.⁸

⁸30 U.S.C.A. § 201:

(iii) Leases covering lands the surface of which is under the jurisdiction of any Federal agency other than the Department of the Interior may be issued only upon consent of the other Federal agency and upon such conditions as it may prescribe with respect to the use and protection of the nonmineral interests in those lands.

43 C.F.R. § 3425.3:

(b) For lease applications involving lands in the National Forest System, the authorized officer shall submit the lease application to the Secretary of Agriculture for consent, for completion or consideration of an environmental assessment and for the attachment of appropriate lease stipulations, and for the making of any other findings prerequisite to lease issuance. (43 CFR 3400.3, 3461.1(a)).

43 C.F.R. § 3432.3:

(a) The terms and conditions of the original lease shall be made consistent with the laws, regulations, and lease terms applicable at the time of modification except that if the original lease was issued prior to August 4, 1976, the minimum royalty provisions of section 6 of the Federal Coal Leasing Amendments Act of 1976 (30 U.S.C. 207; 43 CFR 3473.3–2) shall not apply to any lands covered

(continued...)

Before giving its consent, USFS is authorized to impose conditions to protect Forest Service resources. *Id.* The two agencies, USFS and BLM, are subject to the same dual-agency permitting process. *Id.*; *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp.3d at 1183. Although the agencies do speak to whether properties should be leased, neither agency issues mining permits.

On July 24, 2007, a public scoping meeting was held in Gillette, Wyoming, seeking public input on issues relating to leasing of the tracts. AR 202, 796. The scoping period was extended from July 3 through September 3, 2007, during which BLM received 9 comment letters. *Id.*, BLM28553-28930 (scoping comments.) June 26, 2009, a notice of availability of the Wright Area DEIS was published and public comment period was opened. AR 203, 1543. Another public hearing was held in Gillette on July 29, 2009

⁸(...continued)

by the lease prior to its modification until the lease is readjusted.

(b) Before a lease is modified, the lessee shall file a written acceptance of the conditions imposed in the modified lease and a written consent of the surety under the bond covering the original lease to the modification of the lease and to extension of the bond to cover the additional land.

(c) Before modifying a lease, BLM will prepare an environmental assessment or environmental impact statement covering the proposed lease area in accordance with 40 CFR parts 1500 through 1508.

(d) For coal lease modification applications involving lands in the National Forest System, BLM will submit the lease modification application to the Secretary of Agriculture for consent, for completion or consideration of an environmental assessment, for the attachment of appropriate lease stipulations, and for making any other findings prerequisite to lease issuance.

seeking public input on the DEIS and on the fair market value and maximum economic benefit of the proposed leases. *Id.* The BLM received written comments from 17 individuals, agencies, businesses and organizations and over 500 emails from other interested parties during the comment period. AR 204, 1208-1369; BLM24000-BLM24832; BLM30164-31376 (DEIS comments). The comments were considered and responded to in the FEIS. AR 1370-1416. After the FEIS was published and a 30 day comment period, the BLM issued four separate RODs for the tracts. BLM25277 (South Highlight ROD, March 1, 2011); BLM 25051 (North Hilight ROD, February 1, 2012); BLM 26189 (South Porcupine ROD, August 10, 2011); BLM 25656 (North Porcupine ROD, October 17, 2011). The USFS issued its consent decisions, in accordance with 43 C.F.R. § 3400.3-1. The only USFS consent decisions challenged by petitioners are those addressing the NP and SP tracts. AR 1890 or BLM26117 (USFS ROD for South Porcupine, July 14, 2011), AR 1 (USFS ROD for North Porcupine, September 30, 2011).

The FEIS consists of two volumes, including more than 1,300 pages of analysis of direct, indirect and cumulative impacts on air quality, water quality, climate change, wetlands, soils, vegetation, wildlife, land use, recreation, cultural resources, visual resources, socio-economic considerations and transportation. AR 75 *et seq.* The FEIS was prepared after an extensive period of study, with notice to the public with multiple opportunities for comment. The FEIS ultimately culminated in the decisions reflected in the RODs for the four at-issue tracts, issued in 2011 and 2012.

Reasonable Range of Alternatives

The agencies' decisions were made with certain assumptions providing a basic framework that had been used in the preparation of the FEIS. It was assumed that Ark Land, an Arch Coal subsidiary, and BTU, a Peabody subsidiary, would be the successful bidders, as the LBA applicants proposing the projects, and that coal from the various tracts would be mined, processed and sold pursuant to existing mining operations. FEIS Executive Summary 000108. Indeed, these two business entities are the companies that currently own the leases in the North Antelope Rochelle Mine and the Black Thunder Mine and are the entities seeking to expand existing mines, as proposed in the LBAs. After completing the EIS process, the BLM issued separate RODs for each LBA tract, approving the applications and permitting the tracts to be offered for lease by competitive bidding. Leasing, however, does not authorize mining. Successful bidders must then submit mine permit applications, to the Wyoming Department of Environmental Quality/Land Quality Division ("WDEQ/LQD") for review, which must include detailed mining, monitoring, mitigation, and reclamation analysis. Operators are also required to submit a Resource Recovery and Protection Plan ("R2P2") to the BLM for review. Before any mining operations may begin in a new tract, the permit must be approved by WYDEQ/LQD, and the Mineral Leasing Act mining plan must be approved by the Assistant Secretary of the Department of Interior. Further, modifications to an existing mine must be permitted by the WYDEQ/Air Quality Division ("WDEQ/AQD"). The Executive Summary in the FEIS discloses that other agencies, including the Office of Surface Mining, use these analyses

to make leasing and coal mining decisions pertinent to the specific tracts. Cooperating agencies participating in the preparation of the Wright Area FEIS included WDEQ, Office of Surface Mining Reclamation and Enforcement ("OSM"), the USFS, Wyoming Department of Transportation and the Converse County Board of Commissioners.⁹ FEIS, Executive Summary at 000089.

Five alternatives were considered by the BLM and USFS in the FEIS, summarized in the Executive Summary of the FEIS, with more detailed analysis in the topical chapters of the FEIS. See FEIS Executive Summary 000092. The alternatives analyzed in detail included the "Proposed Action" alternative. Under this alternative, for each LBA tract the BLM would hold a competitive coal lease sale and issue a maintenance lease to the successful bidder for the NH, SH, NP and SP fields. Estimates of coal reserves, lease area and surface disturbances were identified and considered, as were future estimates of coal production, remaining mine life and employment. Potential economic and environmental consequences for each tract are discussed throughout the FEIS. If there is a decision to lease the proposed LBA tracts, BLM then conducts an independent evaluation of volume and quality of coal resources as part of the fair market value determination. This estimate is to be published in the sale notice if a tract is to be offered

⁹Wyoming DEQ regulates surface coal mining operations on federal and non-federal lands in Wyoming under a cooperative agreement with OSM. 30 U.S.C. §§ 1234-1328 (2006) (Surface Mining Control and Reclamation Act, referred to as SMCRA). Wyoming DEQ regulates air quality emissions under the Clean Air Act, 42 U.S.C. §§ 7401-7671q (2006) and surface water discharge under the Clean Water Act, 33 U.S.C. §§ 1251-1387 (1987), with oversight provided by the EPA.

for sale.

The BLM's approach to each of the LBAs was consistent throughout. In addition to the "Proposed Action," Alternative 1 "No Action Alternative" was considered. This alternative was recognized as the environmentally preferable alternative calling for rejection of the applications. Under this alternative the LBA tracts would not be leased and the existing leases at the mines would simply be developed according to existing mining plans. This alternative would not preclude future applications to lease the tracts. Alternative 2 (the "Selected Alternative") would reconfigure the tract, hold a competitive lease sale for the reconfigured tract, and issue a maintenance lease to the successful bidder for a tract that is larger than the applied-for tract. This is the BLM's Preferred Alternative for each of the LBAs.¹⁰ FEIS Executive Summary, AR 92-105.

Two other alternatives were not analyzed in detail, including (1) holding competitive coal lease sales, issuing leases for one or more of the LBA tracts to the successful bidder (not the applicants) for the purpose of developing new stand-alone mines; (2) delaying the competitive sales of one or more of the LBA tracts as applied for to increase the benefit to the public afforded by higher coal prices and/or to allow more complete recovery of the potential coal bed natural gas (CBNG) resources in the tracts prior to mining. The new mine start alternative was not analyzed in detail because the BLM believed it would be unlikely a new mine would start up and lease the tracts. Future coal reserves might be

¹⁰A third alternative is also discussed in the FEIS, but that particular alternative is specific to the West Hilight Field LBA Tract which is not at issue here. FEIS at 000238.

limited in the area and insufficient to support a new sustainable, active mining operation. A new mine would also require initial substantial capital investment and expense, development of new mining and reclamation plans, and new employees. It was likely a new mine would create a new source of air quality impacts. Difficulty in obtaining air quality permits in the PRB discourages new mine starts. Thus, development of new mines was considered unlikely.

The sale-delay option was also not considered in detail. The alternative assumed that tracts might be developed later as a new mine or as maintenance tracts at a later date. Impacts of delayed sale for a maintenance tract would be similar to the proposed action and the reconfigured tract option. New mine starts would be expected to have greater environmental impacts than if the tracts were mined as extensions of existing mines. The consideration of this alternative did recognize that delaying the sale might allow CBNG to be more fully recovered before mining, and if market prices were higher in the future, bonus and royalty payments to the government might be higher. However, lease provisions provide for rentals and royalties to increase if and when coal prices in the market go up. The sale delay alternative was not viewed as an alternative requiring further detailed analysis. Section 2.7 "Alternatives Considered But Not Analyzed in Detail" identifies alternatives including Section 2.7.1, Alternative 4, New Mine Start and Section 2.7.2, Alternative 5, "Delaying the Sale." AR 269-274. Chapter 2 of the FEIS provides a thorough consideration of potential direct, indirect and cumulative impacts of various alternatives. Table 2 provides a summary comparison of the impacts for the alternatives

by resource, magnitude and duration. AR 275-307. While the latter two options were not analyzed in detail, unquestionably, the alternatives were in fact considered. The EIS must briefly discuss reasons for eliminating alternatives from detailed study. This requirement was satisfied. *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp.3d at 1181-1182. The determinative question is whether options were considered, not whether the BLM and USFS were persuaded by these options. *WildEarth Guardians v. United States Forest Service*, 828 F. Supp.2d at 1237.

USFS participated in the development of the Wright Area LBA FEIS and was a cooperating agency. USFS was required to give consent to the BLM prior to leasing these lands in the Grassland. 43 C.F.R. § 3420.4-2. The USFS ROD consented to leasing the 1,637.61 acres in the Grassland in the SP field. SP Litigation Record Index AR 1 ("SP AR"). The USFS ROD consented to leasing 5,120.67 acres of National Forest System land in the Grassland in the NP field. AR 1. For both LBAs, the selected alternative was Alternative 2, with reconfigured tracts and as described in the FEIS. The USFS RODs for the NP and SP fields devoted effort to respond to comments the agency had received regarding the project proposals. USFS noted that the comments had been previously addressed in the DEIS and FEIS and would be carried forward in the USFS consent decisions. AR 1, 44-74 and SP AR 1, 42-72. The applicable regulations permit an agency to adopt an FEIS provided the statement or portions thereof meet the standards for an

adequate statement under these regulations. 40 C.F.R. § 1506.3.¹¹

The BLM, with the input of all cooperating agencies, including USFS, did consider a reasonable range of alternatives, those alternatives as discussed above and in the FEIS. The FEIS and ROD for each proposed lease provide extensive analysis of factors that were considered in choosing the selected action, approving the LBAs, with reconfigured, larger tracts. The process and study resulting in the FEIS encompassed several years. The BLM responded to comments with explanation about the range of alternatives considered and the reader was referred to Chapter 2 of the FEIS describing the proposed action and alternatives for the LBA applications evaluated in the FEIS. See AR 1371. Comments were also invited, received and considered before the RODs issued. See e.g., BLM28553-BLM31406 for a collection of comments and supporting materials received and

¹¹40 C.F.R. § 1506.3 provides:
§ 1506.3 Adoption.

(a) An agency may adopt a Federal draft or final environmental impact statement or portion thereof provided that the statement or portion thereof meets the standards for an adequate statement under these regulations.

(b) If the actions covered by the original environmental impact statement and the proposed action are substantially the same, the agency adopting another agency's statement is not required to recirculate it except as a final statement. Otherwise the adopting agency shall treat the statement as a draft and recirculate it (except as provided in paragraph (c) of this section).

(c) A cooperating agency may adopt without recirculating the environmental impact statement of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied.

(d) When an agency adopts a statement which is not final within the agency that prepared it, or when the action it assesses is the subject of a referral under part 1504, or when the statement's adequacy is the subject of a judicial action which is not final, the agency shall so specify.

considered by the agencies as they worked on completing the FEIS and in turn, issuing RODS. The petitioners participated in the NEPA process at all steps along the way, including scoping, and commenting on the DEIS and FEIS. All comments received by the agencies were reviewed and responded to by BLM and USFS during the NEPA process. The range of alternatives considered was reasonable and consistent with NEPA.

Air Quality Considerations

Petitioners in 12-CV-85 and 13-CV-42 have asserted that the FEIS did not adequately consider the impacts of coal leasing on air quality. The objections are framed to challenge NEPA compliance regarding formation of ozone, particulate emissions ($PM_{2.5}$ and PM_{10}), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and mercury. The FEIS analysis with respect to air quality commences in Chapter 3 at 3.4, summarizing affected environment in the Wright analysis area and potential air quality impacts of the LBA tracts which are to be leased and mined. AR 354.

Air quality regulatory programs are identified in Appendix F. The FEIS advises that “[i]n Wyoming, air pollution impacts are managed by the Wyoming Department of Environmental Quality/Air Quality Division (WDEQ/AQD), under the Wyoming Air Quality Standards and Regulations (WAQSR) and the U.S. Environmental Protection Agency (EPA)-approved State Implementation Plan (SIP).” AR 355. Air quality conditions and potential emission sources are identified and discussed. Simply by way of example, sources of fugitive dust particles and gaseous emissions related to oil and gas

development in the basin may include coal mining activities from emissions from large mining equipment, specific coal mining activities such as blasting, excavating, loading and hauling of overburden and coal, wind erosion of disturbed and unreclaimed mining area. Emissions may include carbon monoxide, particulate matter, dust clouds containing nitrogen dioxide, nitrogen oxides, sulfur dioxide, volatile organic compounds, and ozone. Standards, monitoring and exceedances over time are identified; environmental consequences for various particulates are discussed and analyzed, with respect to the proposed action and Alternatives 2 and 3 for each of the LBA tracts. AR 364-380. Regulatory compliance, mitigation and monitoring for particulate emissions are considered, recognizing that control of emissions at all PRB mines is accomplished with a "variety of measures." AR 380. WYDEQ/AQD permits impose requirements for control of particulate emissions. AR 380-383. Other means of controlling emissions are also discussed, including implementation and compliance with a Natural Events Action Plan (NEAP), a joint effort with WDEQ/AQD and PRB mining stakeholders designed to minimize exceedances and emissions. Modeling studies are discussed providing input into the FEIS decision and consideration of various alternatives. Environmental consequences for visual air quality impacts, water and lake acidification caused by acid pollutants which are primarily the result of emissions from burning fossil fuels, are all discussed. AR 364-406. Other air quality mitigation and monitoring programs in the PRB are outlined, with references to links on the WDEQ/AQD's website for more information. Cumulative impacts of leasing on air quality are presented. AR 679-690. Appendix F to the FEIS provides additional

supplemental air quality information, including regulatory frameworks for air quality, regional conditions, and modeling methodologies. AR 917-936. Through all of this analysis, the FEIS examined the various pollutants. Section 3.4.3 examines emissions of nitrogen oxides and ozone, states whether there have been exceedances at monitoring sites, describes sources of nitrogen oxides (NO_x) and long-term modeling used to make projections about the impacts of these emissions and environmental consequences that might flow from them. Health risks are examined for ozone, which has NO_x as one of its main components in the formation of ground-level ozone.

The Court finds that the agency considered relevant factors and made appropriate disclosures with respect to air quality, emissions including ozone and No_x, and particulate matter pollution. It is an unlikely case where analysis cannot be more thorough or based upon better modeling at some point in time, or simply more comprehensive. However, in this case, measured, monitored and predicted concentrations for particulate matter and other emissions affecting air quality, directly and indirectly, were considered and identified. Perfection is not required. At this point, it is also important to recall that this is not the end of the activities that will be required for these projects to proceed. New air quality permits must be issued before the leased tracts may be mined. AR 366. The future activities, if the lease is put up for a competitive sale, are subject to multiple considerations that will more than likely fill the analytical voids that the petitioners claim exist. Continued assessment and evaluation of accurate data, controlling production rates if exceedances indicate that is appropriate action, and the active regulatory role assumed by WDEQ/AQD ensuring air

quality compliance were all factors playing a significant role in the FEIS analysis and RODs. New information, new study, new analytical tools, new modeling, or even new regulatory schemes may alter the landscape that undergirds this particular FEIS. Lease stipulations will also be required terms of any leases. With respect to the numerous arguments advanced by the petitioners' complaining about the depth and detail in the agencies' analyses of air quality issues, NEPA does not require that level of detail, but rather, that the agencies take a hard look at relevant data.

Direct adverse effects, caused by the action and occurring at the same time and place, 40 C.F.R. § 1508.8(a),¹² would include data addressing the impacts of particulate matter from surface mining operations and emissions of nitrogen oxides, an essential element in the formation of ozone. Standards for particulate matter pollutants are identified. Monitoring data is required by WDEQ/AQD documenting air quality at all PRB mines. Data

¹² 40. C.F.R. § 1508.8 provides:

(a) Direct effects, which are caused by the action and occur at the same time and place.

(b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

was considered relating to occurrences of exceedances of air quality standards in the PRB and for each LBA tract. Environmental consequences relating to particulate emissions were analyzed. The FEIS recognized particulate emissions as being linked to respiratory-related illness and adverse health effects, causes of visibility impairment and haze. Emissions of nitrogen dioxide, nitrogen oxides and ozone are specifically analyzed, SO₂, lake acidification for each alternative are considered for the various tracts. AR 385-407. The flyspeck analysis petitioners want is not required to fulfill NEPA's goals of informed decisionmaking and informed public comment. *WildEarth Guardians v. National Park Service*, 703 F.3d 1178, 1183 (10th Cir. 2013).

The petitioners argue the FEIS included insufficient analysis of the indirect effects of NO₂, SO₂, PM_{2.5}, PM₁₀, and mercury emissions caused by the combustion of coal mined from the Wright area lease tracts. The FEIS reflects the contrary. It recognized that coal mined in the PRB is used by coal-fired power plants to generate electricity. AR 764. It discussed emissions and by-products of coal combustion in the FEIS, AR 764, 787-92, causing the agency to conclude that the LBA applicant mines account for about 0.2 of global mercury emissions, which would be extended for about 22.8 years under the selected alternative. AR 787-90. Analysis of cumulative effects resulting from existing development in the PRB and how they would change if the Wright LBA tracts are leased and mined is set out at length in Chapter 4 of the FEIS. The level of analysis regarding the effects of coal combustion is sufficient to satisfy NEPA. The analysis here is intricately tied to the climate change/GHG analysis, which will be discussed in subsequent portions of this

Opinion and Order.

Water Resources

The FEIS did address adverse environmental consequence of the projects on hydrological resources and included discussion of steps that could be taken to mitigate those adverse effects. The Tenth Circuit has stated:

To be sure, an EIS must assess whether there are “[p]ossible conflicts between the proposed action and the objectives of Federal ... use plans,” 40 C.F.R. § 1502.16(c), and then discuss “steps that can be taken to mitigate [a project’s] adverse environmental consequences.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351, 109 S.Ct. 1835, 104 L.Ed.2d 351 (1989). This requirement is “[i]mplicit in NEPA’s demand that an agency prepare a detailed statement on ‘any adverse environmental effects which cannot be avoided should the proposal be implemented.’” *Id.* at 351–52, 109 S.Ct. 1835 (quoting 42 U.S.C. § 4332(C)(ii)). Accordingly, the EIS must discuss “mitigation ... in sufficient detail to ensure that environmental consequences have been fairly evaluated.” *Id.* at 352, 109 S.Ct. 1835. An agency is required to “discuss possible mitigation measures in defining the scope of the EIS, 40 CFR § 1508.25(b) (1987), in discussing alternatives to the proposed action, § 1502.14(f), and consequences of that action, § 1502.16(h), and in explaining its ultimate decision, § 1505.2(c).” *Id.* “It is not enough to merely list possible mitigation measures.” *Colorado Env’tl. Coal. v. Dombeck*, 185 F.3d 1162, 1173 (10th Cir.1999).

But NEPA does not contain “a substantive requirement that a complete mitigation plan be actually formulated and adopted.” *Robertson*, 490 U.S. at 352, 109 S.Ct. 1835. An EIS’s discussion of mitigation measures need be only “reasonably complete.” *Id.* It need not present a mitigation plan that is “legally enforceable, funded or even in final form to comply with NEPA’s procedural requirements.” *Nat’l Parks & Conservation Ass’n v. U.S. Dep’t of Transp.*, 222 F.3d 677, 681 n. 4 (9th Cir. 2000).

“[T]he line between an EIS that contains an adequate discussion of mitigation measures and one that contains a ‘mere listing’ is not well defined.” *Okanogan Highlands Alliance v. Williams*, 236 F.3d 468, 476 (9th Cir. 2000). The essential

test is reasonableness. See *Robertson*, 490 U.S. at 352, 109 S.Ct. 1835 (discussion need be only “reasonably complete”). And the detail that reasonableness requires can depend on the stage of the approval process at which the EIS is prepared.

Detailed quantitative assessments of possible mitigation measures are generally necessary when a federal agency prepares an EIS to assess the impacts of a relatively contained, site-specific proposal. See *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380–81 (9th Cir. 1998); *The Wilderness Soc’y v. Bosworth*, 118 F.Supp.2d 1082, 1106–07 (D.Mont. 2000). But requiring such detail would often not be appropriate when the EIS concerns a large-scale, multi-step project and the risks to be mitigated cannot be accurately assessed until final site-specific proposals are presented. For the EIS to analyze in detail every possible site proposal could take enormous time and resources, much of which would be wasted on potential proposals that would never materialize. Thus, NEPA regulations allow for “tiering” of environmental reviews:

Tiering refers to the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

40 C.F.R. § 1508.28. Tiering can “eliminate repetitive discussions of the same issues and [allows the agency] to focus on the actual issues ripe for decision at each level of environmental review,” *id.* § 1502.20, while “exclud[ing] from consideration issues already decided or not yet ripe,” *id.* § 1508.28(b); see *Sierra Club v. U.S. Army Corps of Eng’rs*, 295 F.3d 1209, 1215 (11th Cir. 2002).

San Juan Citizens Alliance v. Stiles, 654 F.3d 1036, 1053-1054 (10th Cir. 2011).

Chapter 3 of the FEIS included analysis of direct and indirect impacts to the groundwater system resulting from mining the LBA tracts. The FEIS discussed mitigation measures imposed on mine operators by SMCRA, state law, and mining permits for the

Wright area tracts. Mine operators are required by SMCRA and Wyoming regulations to provide the owner of a water right whose water source is interrupted, discontinued, or diminished by mining with water of equivalent quantity and quality. Mines are required to monitor water levels and water quality in the overburden, coal, interburden, underburden, and backfill, which are dynamic programs subject to modification through time. SMCRA and state regulations also require surface coal mines to maintain the essential hydrologic functions of the streams and alluvial groundwater systems that are disturbed by mining, which means mines are typically required to salvage and stockpile the stream laid alluvial materials during mining and replace them upon reclamation. AR 439-440. The FEIS includes studies and modeling analyses used to predict the impacts of coal mining on groundwater resources in the PRB. AR 690-708. Likewise, cumulative environmental consequences are considered in the FEIS with respect to surface water. AR 708-718. The analysis was also mindful that more detailed, quantitative analysis of mitigation measures would be designed and implemented by WDEQ during later permitting processes. "BLM does not authorize mining permits nor regulate mining operations with the issuance of a BLM coal lease. WDEQ is the agency that permits mining operations and has authority to enforce mining regulations. In Wyoming, WDEQ has entered into a cooperative agreement with the Secretary of the Interior to regulate surface coal mining operations. Mitigation and other requirements are developed as part of the mining and reclamation permit. These must be approved by WDEQ before mining operations can occur on leased federal coal lands." AR 605.

The United Supreme Court instructs in *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352-353, 109 S.Ct. 1835, 1847 (1989):

There is a fundamental distinction, however, between a requirement that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated, on the one hand, and a substantive requirement that a complete mitigation plan be actually formulated and adopted, on the other. In this case, the off-site effects on air quality and on the mule deer herd cannot be mitigated unless nonfederal government agencies take appropriate action. Since it is those state and local governmental bodies that have jurisdiction over the area in which the adverse effects need be addressed and since they have the authority to mitigate them, it would be incongruous to conclude that the Forest Service has no power to act until the local agencies have reached a final conclusion on what mitigating measures they consider necessary. Even more significantly, it would be inconsistent with NEPA's reliance on procedural mechanisms -- as opposed to substantive, result-based standards -- to demand the presence of a fully developed plan that will mitigate environmental harm before an agency can act. Cf. *Baltimore Gas & Electric Co.*, 462 U.S., at 100, 103 S.Ct., at 2254 ("NEPA does not require agencies to adopt any particular internal decisionmaking structure").

The Court finds that the discussion of water resources and groundwater mitigation measures in the FEIS satisfies NEPA.

Reclamation

Again, the Court finds that the FEIS did take a hard look at impacts of land disturbance associated with the Wright Area leasing decisions and did consider reclamation activities in the PRB. The petitioners' arguments regarding other options suggest that lease sales should be delayed pending completion of reclamation activities by mines in the PRB. In the FEIS, information about the status, ownership and production levels for existing surface coal mines as of 2007 is included. Some area has been on full

reclamation bond release; changes in post-mining land use had been requested for changes in land use siting for other projects on reclaimed land. Projections of cumulative coal mine disturbances for disturbance areas were of three types: areas which are or were projected to be permanently reclaimed; areas which are or are projected to be undergoing active mining or which have been mined but not yet reclaimed, and areas which are or are projected to be occupied by mine facilities, haul roads, stockpiles, and other long-term structures, and which are therefore unavailable for reclamation until mining operations are completed. AR 640-647. Coal development impacts and activities in the region provided a backdrop for the BLM's analysis. The FEIS includes discussions of impacts to topography from ground disturbance, including removal of overburden and coal, and eventual replacement of overburden, total acreage disturbed in the region, areas reclaimed and unreclaimed, with indications of portions attributable to mining, and annual projections based on production scenarios. The FEIS analysis discloses, based upon this data, that reclamation is far outpaced by surface disturbance and that some areas cannot be reclaimed until there is no active mining. AR 672-718. Reclamation was considered by the agencies and NEPA's requirements and purposes have been satisfied.

Climate Change Impacts/Greenhouse Gas Emissions

In a comment in the record from another interested party, Center for Biological Diversity, there is a section heading entitled "The Proper Context for an Analysis of the Wright Area Project is the Climate Crisis." BLM30778. Although cursory, this comment

succinctly sums up why petitioners believe the agencies failed in their mission to prepare an FEIS that satisfies NEPA. The comments of petitioners and others paint a bleak future and because of a sense of urgency, they believe that more detailed consideration of the effects of climate change when making decisions regarding coal leasing and mining on public lands is required. Petitioners contend that the FEIS has failed to consider the impacts of the decisions to lease the Wright area LBA tracts on climate change. Their submissions to the agencies addressed these concerns in numerous aspects and provided detailed supporting materials, scientific references and reports, and argument. However, the Court disagrees with the assertion that climate change was not considered sufficiently to satisfy NEPA and the record also belies that claim. Climate change impacts are discussed extensively in the FEIS at Chapter 3, "Affected Environment and Environmental Consequences," and Chapter 4, "Cumulative Environmental Consequences."

In Chapter 3, the FEIS acknowledges "considerable scientific investigation and discussion as to the causes of recently increasing global mean temperatures and whether a warming trend will continue. This section will address greenhouse gas (GHG) emissions as specifically related to the Black Thunder ... and North Antelope Rochelle mines[.]" AR 630. GHGs are identified, and the FEIS states that "there is a consensus in the international community that the global climate change is occurring and that it should be addressed in governmental decision making. If the coal in the [LBA fields] is leased and mined, so-called GHG emissions from the mining operations would be released into the atmosphere. A discussion of emissions and by-products that are generated by burning

coal to produce electricity, and a more complete discussion of the global warming and climate change phenomena is included in Section 4.2.14.” *Id.* The use of coal after it is mined is unknown at the time of leasing; it is known that nearly all coal mined in the PRB is used by coal-fired power plants for generation of electricity. The current mining plans estimated tons of recoverable coal, estimated annual production rates and the predicted extended life of the mines. Inventories of sources of emissions from some PRB surface coal mines (including some but not all of the LBA applicants) include all types of carbon fuels used in mining operations, electricity used on site for lighting for facilities and roads, operations, electrically powered equipment and conveyers, and mining processes, such as blasting, coal fires caused by spontaneous combustion and methane released from exposed coal seams. Estimates of emissions resulting from transport of coal by rail, onsite and in moving coal to buyers were not included in the emissions for the applicant mines because of a lack of information. AR 631-632. CO₂ emissions resulting from activities in Wyoming were estimated by the Center for Climate Strategies to account for approximately 60.3 million tonnes of gross CO₂e [carbon dioxide equivalent] emissions in 2010 and 69.4 million tonnes in 2020. AR 632-633. Section 4.2.14 assesses cumulative impacts related to GHGs, and how each of the action alternatives considered contribute to these impacts. Section 4.2.3 “Air Quality,” AR 679, states scientific evidence that “increased atmospheric concentrations of greenhouse gases (GHGs) and land use changes are contributing to an increase in average global temperature. (IPCC 2007).” *Id.* Modeling approaches for projecting levels of emissions from expected levels of development are described, as are

modeled impacts on ambient air quality. Section 4.2.14 addresses coal mining and coal-fired power plant related emissions and by-products, with specific consideration of GHGs, global warming and climate change in Section 4.2.14.1. AR 765. The FEIS recognizes a consensus in the scientific community that GHG concentrations have increased, resulting in increases in average global temperatures. Findings of NOAA, IPCC and the National Academy of Sciences confirm the findings, but computer modeling predictions also indicate increases in temperature will not be equally distributed, and are likely to be accentuated at higher latitudes. AR 767-768. Various climate change models for predicting or projecting future climate change are discussed, resulting in some consistency in predictions of climate warming under GHG increases. AR 765-770. The cumulative effects of combustion of PRB coal by power plants are considered in Section 4.2.14.2. Relatively little PRB coal is burned in Wyoming; most coal is sold in an open coal market and is shipped nationwide. Approximately 451.7 million tons of coal were produced from Wyoming PRB coal mines in 2008. It was estimated that approximately 749.6 million metric tons of CO₂ would be generated from combustion of all the coal (before applying CO₂ reduction technologies), based on Btu values of 8,600 per pound of Wyoming coal and using a CO₂ emission factor of 212.7 pounds of CO₂ per million Btu. The estimated 749.6 million tonnes of CO₂ represents approximately 35.3 percent of estimated 2,125.2 million tonnes of U.S. CO₂ emissions from coal combustion in 2008. AR 771-773. In 2008, Wyoming PRB mine production accounted for approximately 38.5 percent of coal produced in the United States. Wyoming PRB coal production represented 43.4 percent of coal used for power generation

in 2008, translating to mean that combustion of Wyoming PRB coal to produce electric power was responsible for about 12.8 percent of estimated U.S. CO₂ emissions in 2008.

Id. The FEIS stated at AR 774:

It is not possible to accurately project the level of CO₂ emissions that burning the coal from the six WAC LBA tracts would produce due to the uncertainties about what emission limits would be in place at that time or where and how the coal in these LBA tracts would be used if they are leased and the coal is mined. Furthermore, the rate of mining and the timing of when coal removal from the tracts would actually begin are only the applicant mines' best estimate. As shown in Tables 2-2 through 2-13, under the No Action alternatives the mines are projecting that after 2008 approximately 10 to 11 years of currently permitted mine life remains. Therefore, coal removal from these six proposed maintenance lease tracts would not begin until approximately 2018 or 2019. More rapid improvements in technologies that provide for less CO₂ emissions, new CO₂ mitigation requirements, or an increased rate of voluntary CO₂ emissions reduction programs could result in significantly lower CO₂ emissions levels than are projected here.

Although the effects of GHG emissions and other contributions to climate change in the global aggregate are estimable, given the current state of science it is impossible to determine what effect any given amount of GHG emissions resulting from an activity might have on the phenomena of global warming, climate change, or the environmental effects stemming from it. It is therefore not currently possible to associate any particular action and its specific project-related emissions with the creation or mitigation of any specific climate-related effects at any given time or place. However, it is known that certain actions may contribute in some way to the phenomenon (and therefore the effects of) climate change, even though specific climate-related environmental effects cannot be directly attributed to them.

AR 777-778.

The FEIS discussed concerns associated with burning coal for electricity generation to include mercury, coal combustion residues and other by-products. EPA estimates of 50-70 percent of then-current (2006) global anthropogenic atmospheric emissions came from

fuel combustion and much of that from international sources, such as China and India. AR 787-788. This case is distinguishable from *High Country Conservation Advocates v. United States Forest Service*, 52 F. Supp.3d 1174, where the district court was critical of the agencies' failures to quantify costs.

The FEIS discussion regarding GHGs is by necessity shortened here and likely fails to include discussion of matters of equal significance. But, it is sufficient to demonstrate that GHG emissions were evaluated and attempts to quantify as a percentage of state and nationwide emissions were made. NEPA requires that foreseeable effects of proposed actions be disclosed and evaluated. See also, GHG entries, BLM32841-32861. It is worthy to note that petitioners participated extensively in the NEPA process, commenting on the DEIS and FEIS prior to issuance of the RODs and all comments received responses from the agencies. See e.g., BLM30197-30358 (DEIS), 30717-30760 (FEIS) (Jeremy Nichols, WEG); BLM30765-30776 (DEIS); BLM31377-31398 (FEIS) (PRBRC). The NP litigation record index includes 347 pages of comments to the USFS consent decision and the Wright Area FEIS. AR 4249-4596. In the FEIS, the BLM responses to comment letters regarding the DEIS are comprehensive, commencing at AR 1370-1416. The USFS ROD for the NP field includes responses to comments in Appendix C, NP AR 44-74; USFS ROD for SP field includes comment responses at Appendix C, SP AR 42-72.

The FEIS adequately disclosed the effects of GHG emissions. Based on the then-available information, BLM explored and discussed impacts of global climate change, but indicated that the impacts of the proposed LBA leases could not be reliably calculated with

precision. Factors of significance were identified, particularly the fact that coal from the PRB and these mines was destined for sale in the open market and was not delivered to, for example, a single power plant where the same variables might permit quantification of climate impacts with greater precision. The agencies reasonably discussed GHG emissions, climate change and the role of the LBA applicants and mines in the open global coal market. Other unknown variables were identified which prevented more meaningful prediction of impacts of the projects on global climate change, including by way of example, unknown naturally occurring events such as volcanic eruptions and variations in solar activities, or transportation of coal by rail. The evidence offered by petitioners during the NEPA process regarding climate change, modeling and the state of scientific study was considered by BLM/USFS. The FEIS provided a statement that the information regarding the precise impact on global warming was not then available and, "given the current state of science, it is not yet possible to associate specific actions with the specific climate impacts."¹³ Even if the analysis in the FEIS was imperfect and could have been better,

¹³ 40 C.F.R. § 1502.22 provides:

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

(a) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.

(continued...)

and today the analysis likely could have been better given the development and acquisition of new knowledge and continuing scientific study, the agencies considered the effects of climate change, recognized benefits and costs of mining coal in the Wright area tracts. The record reflects that the agencies did not ignore the effects of coal combustion, GHGs

¹³(...continued)

(b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement:

(1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment; (3) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and (4) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

(c) The amended regulation will be applicable to all environmental impact statements for which a Notice of Intent (40 CFR 1508.22) is published in the Federal Register on or after May 27, 1986. For environmental impact statements in progress, agencies may choose to comply with the requirements of either the original or amended regulation.

and climate change in reaching the decisions it made. Risks of harm were considered.

Agencies need not have perfect foresight when considering indirect effects, which are by definition are later in time or farther removed in distance from direct ones. “[W]hen the *nature* of the effect is reasonably foreseeable but its *extent* is not . . . the agency may not simply ignore the effect.” (citation omitted).

WildEarth Guardians v. United States Office of Surface Mining, Reclamation and Enforcement, ___ F. Supp.3d ___, 2015 WL 2207834, *14. And, here, the coal is entering the free marketplace, which diminishes the agencies’ abilities to foresee the effects of coal combustion. It is not known where the coal may be sold; there is uncertainty as to the location and the method or timing of the combustion. *Id.*, *15 (coal mined solely for use by the Craig Power Plant); *Diné Citizens Against Ruining Our Environment v. United States Office of Surface Mining Reclamation & Enforcement*, ___ F. Supp.3d ___, No. CV 12-CV-01275-JLK, 2015 WL 996605, dat *6 (D.Colo. Mar. 2, 2015)(all coal mined would be combusted at the Four Corners Power Plant).

The Court is restricted to a very deferential review of agency action. A reviewing court is not required to find that the agency’s decision is the only reasonable decision that could be made or even that it is the result the court would have reached if the question had arisen in the first instance in judicial proceedings. *WildEarth Guardians v. Salazar*, 880 F. Supp.2d 77, 81-82 (D.D.C. 2012). It is not even enough for the agency decision to be incorrect; as long as there is some rational basis, the court must uphold the decision. *Id.* “At bottom, the reviewing court is not entitled to substitute its judgment for that of the agency.” *Id.* Here, the analysis was sufficient to satisfy the goals of NEPA, public

participation and informed decisionmaking, and thus, the agencies' actions are not arbitrary and capricious.

FLPMA

Under FLPMA's regulatory provisions governing land use authorization, 43 C.F.R.

§ 2920.7(b) provides:

(b) Each land use authorization shall contain terms and conditions which shall:

- (1) Carry out the purposes of applicable law and regulations issued thereunder;
- (2) Minimize damage to scenic, cultural and aesthetic values, fish and wildlife habitat and otherwise protect the environment;
- (3) Require compliance with air and water quality standards established pursuant to applicable Federal or State law; and
- (4) Require compliance with State standards for public health and safety, environmental protection, siting, construction, operation and maintenance of, or for, such use if those standards are more stringent than applicable Federal standards.

43 C.F.R. § 1610.5-3(a) provides:

(a) All future resource management authorizations and actions, as well as budget or other action proposals to higher levels in the Bureau of Land Management and Department, and subsequent more detailed or specific planning, shall conform to the approved plan.

Exemplary leases are included in the pertinent RODs. The pertinent language of the coal lease, at Sec. 14, SPECIAL STATUTES, provides:

This lease is subject to the Clean Water Act (33 U.S.C. 1252 et seq.), the

Clean Air Act (42 U.S.C. 4274 et seq.), and to all other applicable laws pertaining to exploration activities, mining operations and reclamation, including the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.).

See e.g., AR at BLM 25088 (ROD BLM NH field LBA), BLM 25313 (ROD BLM SH field LBA). The statements in the leases are sufficient to demonstrate compliance with the regulation.

Arguments that the BLM did not comply with the Buffalo RMP are not persuasive. The Approved Resource Management Plan is in the AR at 6484. With respect to Air Quality Management Decisions, the RMP provides:

Management objective: Maintain or enhance air quality, protect public health and safety and sensitive natural resources, and minimize emissions that could result in acid rain, violations of air quality standards, or reduced visibility.

Management decisions: Any BLM-initiated actions or authorization that result in air quality or visibility deterioration are conditioned to avoid violating Wyoming and national air quality standards. This is done by coordinating BLM-managed activities with the Wyoming Department of Environmental Quality (WDEQ) and the U.S. Environmental Protection Agency (EPA).

AR 6491. The leases include provisions requiring compliance with applicable law. Further, when the BLM developed the FEIS in cooperation with the WDEQ and EPA, its obligations under the RMP were satisfied. As discussed above, air quality standards and potential emissions were fully considered in the FEIS.

NFMA

Petitioners have claimed the USFS violated NFMA by approving the leases because

they were inconsistent with air quality standards in the Land and Resource Management Plan (LRMP) for the Grassland. The Act requires the Secretary of Agriculture to develop resource management plans for national forest units, 16 U.S.C. § 1604(a). 16 U.S.C. 1604(i) provides:

(i) Consistency of resource plans, permits, contracts, and other instruments with land management plans; revision

Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans. Those resource plans and permits, contracts, and other such instruments currently in existence shall be revised as soon as practicable to be made consistent with such plans. When land management plans are revised, resource plans and permits, contracts, and other instruments, when necessary, shall be revised as soon as practicable. Any revision in present or future permits, contracts, and other instruments made pursuant to this section shall be subject to valid existing rights.

The Grassland LRMP providing standards and guidelines for air must:

1. Meet state and federal air quality standards, and comply with local, state, and federal air quality regulations and requirements, either through original project design or through mitigation, for such activities as prescribed fire, mining, and oil and gas exploration and production. (See Appendix A) **Standard**

2. Meet requirements of the Prevention of Significant Deterioration (PSD), State Implementation Plans (SIP), and applicable Smoke Management Plans. **Standard**

* * * *

AR 21013. The FEIS considered impacts of the leases on air quality and emissions. As discussed above and in the FEIS, leases must require compliance with the Clean Air Act, and all other applicable laws pertaining to exploration activities, mining operations and reclamation. The lease ensures compliance with the NFMA.

MLA

Petitioners contend that the BLM violated NEPA by failing to analyze whether leasing the Wright area tracts would lead to violations of the MLA, particularly 30 U.S.C. § 184(a), which provides:

(a) Coal leases

No person, association, or corporation, or any subsidiary, affiliate, or persons controlled by or under common control with such person, association, or corporation shall take, hold, own or control at one time, whether acquired directly from the Secretary under this chapter or otherwise, coal leases or permits on an aggregate of more than 75,000 acres in any one State and in no case greater than an aggregate of 150,000 acres in the United States: Provided, That any person, association, or corporation currently holding, owning, or controlling more than an aggregate of 150,000 acres in the United States on the date of enactment of this section shall not be required on account of this section to relinquish said leases or permits: Provided, further, That in no case shall such person, association, or corporation be permitted to take, hold, own, or control any further Federal coal leases or permits until such time as their holdings, ownership, or control of Federal leases or permits has been reduced below an aggregate of 150,000 acres within the United States.

PRBRC asserts that BLM should have considered the holding size question in the EIS analysis. However, as the federal defendants here have noted, this statute is not one imposed for the protection of the environment, but rather is an antitrust measure. In *WildEarth Guardians v. Salazar*, 880 F. Supp.2d 77 (D. D.C. 2012), PRBRC had advanced arguments that whether 30 U.S.C. § 184(a) was imposed for the environment was simply irrelevant. That court stated:

Contrary to what PRBRC may think, the conceded fact that 30 U.S.C. § 184(a) was not imposed for the protection of the environment is anything but “irrelevant.” PRBRC’s [86] Mem. at 18. PRBRC’s irrelevancy argument turns on its interpretation of 40 C.F.R. § 1508.27(b)(10) as a two-prong

inquiry requiring responsible officials to consider “whether the action threatens a violation of Federal, State, or local law,” on the one hand, or “requirements imposed for the protection of the environment,” on the other hand. 40 C.F.R. § 1508.27(b)(10). Stated somewhat differently, PRBRC suggests that the phrase “imposed for the protection of the environment” modifies only “requirements” and not “Federal, State, or local law.” See PRBRC’s [86] Mem. at 17–18. This is a specious and untenable reading of the regulation. Such a construction would require responsible officials to contemplate whether a proposed action might threaten a violation of any federal, state, or local law regardless of its subject or purpose, but the regulation quite clearly speaks to the factors responsible officials should consider when evaluating the environmental impacts of agency action. The most natural reading of the regulation is that the threatened violation must relate to a law or requirement that is “imposed for the protection of the environment.” 40 C.F.R. § 1508.27(b)(10); see also *Coal. on Sensible Transp. Inc. v. Dole*, 642 F. Supp. 573, 590 (D.D.C. 1986) (characterizing 40 C.F.R. § 1508.27(b)(10) as “requir[ing] consideration of whether a project threatens a violation of federal, state, or local environmental laws.”) (emphasis added), *aff’d*, 826 F.2d 60 (D.C.Cir.1987). Indeed, the United States Court of Appeals for the District of Columbia Circuit has interpreted a similar regulation in this way. See *City of Los Angeles v. NHTSA*, 912 F.2d 478, 490 (D.C.Cir.1990) (interpreting 49 C.F.R. § 520.5(b)(6)(i)), *overruled on other grounds by Fla. Audubon*, 94 F.3d at 669.

Because it is conceded that 30 U.S.C. § 184(a) was not imposed for the protection of the environment, and because 40 C.F.R. § 1508.27(b)(10) only requires responsible officials to consider whether a proposed action threatens a violation of laws imposed for the protection of the environment, there was no need for BLM’s NEPA analysis to address whether leasing the WALL tracts would comply with 30 U.S.C. § 184(a). PRBRC’s claim that BLM acted arbitrarily and capriciously by failing to analyze compliance with Section 184(a) is without merit.

WildEarth Guardians v. Salazar, 880 F. Supp.2d at 93.

The same reasoning obtains here and the agencies were not required to consider in the NEPA analysis whether leasing of the Wright area tracts would violate 30 U.S.C. § 184(a) of the MLA.


Conclusion

These cases, like many others, demonstrate that the NEPA process “involves an almost endless series of judgment calls,’ and ‘the line-drawing decisions necessitated by the NEPA process are vested in the agencies, not the courts.” *Jewell*, 738 F.3d at 312 (citations and quotations omitted). The analysis and assessments set forth in the FEIS are sufficient to satisfy NEPA. The agencies’ decisions to authorize leases for the Wright area tracts are not arbitrary, capricious or contrary to law and must be affirmed in their entirety. The relief sought by petitioners will be denied. It is therefore

ORDERED that the Petitions for Review of Agency Action filed in the three above-captioned cases shall be, and are, **DENIED**. It is further

ORDERED that the agency actions are hereby **AFFIRMED**.

Dated this 14th day of August 2015.


ALAN B. JOHNSON
UNITED STATES DISTRICT COURT

ACRONYMS

APA	Administrative Procedures Act
AR	Administrative Record
BLM	Bureau of Land Management
DEIS	Wright Area Draft Environmental Impact Statement
FEIS	Wright Area Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
GHGs	Greenhouse Gases
Grassland	Thunder Basin National Grassland
LBA	Lease by Application
MLA	Mineral Leasing Act
NEPA	National Environmental Policy Act
NH	North Hilight
NP	North Porcupine
PRB	Powder River Basin
PRBRC	Powder River Basin Resource Council
ROD	Record of Decision
SH	South Hilight
SP	South Porcupine
USFS	United States Forest Service
WEG	WildEarth Guardians